REMARKS

In accordance with the foregoing, various of the original claims 1-15 are amended to improve clarity and without change to substance and, further, new independent claim 16 is added to afford varying scope of protection for the invention.

No new matter is presented and, accordingly, approval and entry of the amended and new claims are respectfully requested.

STATUS OF CLAIMS

All of the pending claims 1-15 are rejected over the art record.

ITEM 2: REJECTION OF CLAIMS 1-4 AND 13-14 FOR ANTICIPATION UNDER 35 U.S.C. §102(b) BY LIM ET AL. (US 2003/0006945); AND

ITEM 4: REJECTION OF CLAIMS 5-12 AND 15 FOR ANTICIPATION UNDER 35 U.S.C. §102(b) BY KANG ET AL. (U.S. PATENT 6,653,795)

The foregoing rejections are respectfully traversed.

ABSENCE OF ANY REJECTION OF MULTIPLE DEPENDENT CLAIM 13, AS TO DEPENDENCIES FROM CLAIMS 5, 6, 11, AND 12, AND CORRESPONDING CLAIM 14/13

The foregoing rejections of Items 2 and 4 address only in Item 2 of the Action claim 13/1 and corresponding claim 14/13.

However, claim 13 is also dependent from claims 5, 6, 11, and 12 and which, along with the related claim 14/13, are <u>not</u> rejected in Item 4 of the Action based on Kang et al. and, thus, stand allowable based on the references and rejections of record.

It is submitted also to be clear that any rejection of claim 13 with respect to its dependencies from claims 5, 6, 11, and 12, and the corresponding claim 14/13, in a next future Action could not be made Final, since no first rejection of same has been asserted.

CLAIM 1 AND DEPENDENT CLAIMS 2-4, 13/1 AND 14/13 READILY DISTINGUISH OVER LIM ET AL., RELIED UPON IN THE REJECTION OF ITEM 2 OF THE ACTION

To clarify the patentable distinctions between the invention as set forth in claim 1 and Lim et al., it is helpful to transform the "relational expression" set forth in claim 1 to the following expression:

$$2V_{tAY} - V_{DXY} + 2V_{soff} \leq V_{AY} - V_{XY}$$

The transformed expression shows that ($V_{AY} - V_{XY}$) should vary according to the value ($2V_{tAY} - V_{tXY} + 2V_{aoff}$). Note that the value V_{aoff}, the offset voltage between the address (A) and Y electrodes, depends on the sustain waveforms which are applied in the preceding sub-frame, as may be seen in FIG.12.

Furthermore, waveforms in portion (a) of FIG.12 show that the greater amplitude of the sustain voltages applied to the X and the Y electrodes results in the greater wall voltage shown as a dotted line in (B) "AY Electrodes" in FIG.12 , which causes V_{aoff}. That is, the expression shows that V_{AY} and /or V_{XY} should be varied if values of V_{aoff} in a preceding frame change.

Lim, however, shows that V_{rd} (-60 to -65V) and the voltage on the Z electrode at t1 are fixed in the case of FIG. 7 and FIG. 10, even if the values SUSPy are changed. In more detail, the value SUSPy in FIG. 7 and in the periods SW1 or SW2 in FIG.10 may be same, and the value in period SE1 in FIG.10 is greater than that SUSPy in the periods SW1 or SW2SE1.

Accordingly, it is respectfully submitted to be clear that the invention as defined in claim 1 is neither described nor suggested by Lim et al.

Since the dependent claims 2-4, 13 and 14 inherit the distinctions of independent claim 1, they likewise distinguish over Lim et al.

Furthermore, the dependent claims present respective limitations further patentably distinguishing over Lim et al.

Accordingly, it is submitted that all the pending claims 1 and 2-4, 13 and 14 patentably distinguish over Lim et al. and, accordingly, the rejection based on same should be withdrawn.

REJECTION OF CLAIM 5 BASED ON "FIGS. 5-13, COL. 7, LINES 55-67 TO COL. 34, LINES 1-40" of KANG ET AL.

Clarification is requested of the Examiner as to whether the Action relies on the entirety of col. 7, lines 55 through col. 34, line 40 or only the more limited portion of cols. 7, lines 55-67 and col. 34, lines 1-40.

CLAIM 5

Claim 5 relates to FIG.18 of the present application. Claim 5 specifies:

> Wherein a sustaining pulse applied in the. sustaining period to each of the X electrodes and the Y electrodes includes an alternating pulse oscillating between both sides of a predetermined reference voltage at least in the beginning portion of the sustaining period and a pulse of positive voltage based on the reference potential at the end of the sustaining period....

This recitation of claim 5 is illustrated in the above form of FIG. 18, wherein the sustaining pulse applied to each of the X and the Y electrodes are the pulses which have the amplitude $\pm V_{s1}/2$ in the beginning portion of the sustaining period and the pulses of positive voltage $+ V_{s2}$ at the end of the sustaining period, while the predetermined reference voltage is OV.

The foregoing character of the sustaining pulses recited in claim 5 is altogether absent in Kang et al.

Particularly, in Figs. 6, 7, 10A, 10B, 11, out of the cited group of FIGS. 5 - 18 in Kang et al. (U.S. Patent 6,653,795), the sustaining pulses, such as SUSY1, SUSY2, SUSY3, SUSZ1, SUSZ2, SUSZ3 in FIG. 6, for example, are positive - - and thus, are not alternating pulses oscillating between both sides of a predetermined reference voltage. Furthermore, Kang et al. does not include a pulse of positive voltage based on the reference potential. In more detail, in FIG. 6 of Kang et al., SUSY1 to SUSY3 and SUSZ1 to SUSZ2 are sustaining pulses in the beginning portion in WSF; if those sustaining pulses were alternating pulses, oscillating between both sides of a predetermined reference voltage, then the predetermined reference should a positive voltage, because these sustaining pulses are positive. Moreover, at the end portion of sustaining period, ERSPY and ERSPZ are alternating pulses oscillating between both sides of the predetermined reference voltage.

Accordingly, Kang et al. does not disclose or suggest " a sustaining pulse applied in the sustaining period to each of the X electrodes and the Y electrodes ...[which]...includes an alternating pulse oscillating between both sides of a predetermined reference voltage at least in the beginning portion of the sustaining period and a pulse of positive voltage based on the reference potential at the end of the sustaining period."

Accordingly, it is submitted to be clear that claim 5 distinguishes patentably over Kang et al.

CLAIM 6 AND DEPENDENT CLAIMS 7-10

Claim 6 relates to the embodiment shown in FIGS. 19 and 20, in which the voltage applied to the address (A) electrode is set to $-V_A$, a negative voltage.

In FIGS., 7,10A, 10B, 11 of Kang et al. (U.S. Patent 6,653,795), an X electrode, corresponding to an address (A) electrode in the present application, is not applied with a negative voltage.

Accordingly, it is clear that Claim 6 of the present application is not disclosed or suggested by Kang.

INDEPENDENT CLAIM 11

Claim 11 relates to FIG.21, wherein a voltage applied to the an address (A) electrode is a positive voltage $+V_A$.

In FIGS. 7,10A, 1013, 11 of Kang et al. (U.S. Patent 6,653,795), no positive voltage is applied to an X electrode, corresponding to an address (A) electrode in the present application.

Accordingly, it is clear that Claim 11 of the present application is not disclosed or suggested by Lim et al.

INDEPENENT CLAIM 12

Claim 12 relates to FIG. 24 in which a waveform applied to the address electrodes at the end of the resetting period is a positive voltage + V_{XR}.

In FIGS. 5-13 of Kang et al. (U.S. Patent 6,653,795), no positive voltage is applied, except for SWD which is applied to the X electrodes during ADDRESS (see, col. 1, lines 10 and FIG. 6). Therefore, the reference does not disclose or suggest that a waveform applied to the address electrodes at the end of the resetting period is a positive voltage.

INDEPENDENT CLAIM 15

Claim 15 recites, inter alia, "two types of discharges including a discharge between the X electrodes and the Y electrodes and a discharge between the address electrodes and the Y electrodes ... caused at the end of the initializing period."

In col.7 lines 55-67, and col.34, lines 1-40 of Kang et al. (U.S. Patent 6,653,795), there is no disclosure of two types of discharges (i.e., a discharge between the X electrodes and the Y electrodes and a discharge between the address electrodes and the Y electrodes) caused at the end of the initializing period.

The Examiner will please recall that the X, Y, and address electrodes in the present application correspond to the Z, Y and X electrodes, respectively, of Kang et al. (see, col. 9, line 62 and col., 10, line 9.).

Accordingly, it is submitted to be clear that Claim 15 of the present application is not disclosed or suggested by Kang et al.

CLAIM 16

As in the case of the prior independent claims, claim 16 sets forth a relational expression defining relative voltage relationships and characteristics of the voltages which have no counterpart in either Kang or Lim and, accordingly, claim 16 as well is respectfully submitted to patentably distinguish thereover.

CONCLUSION

In accordance with the foregoing, it is respectfully submitted that the pending claims have been shown to distinguish patentably over the references and rejections of record and, there being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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